

minum, and zinc in the proportion of 50:45:5. Slightly soluble in hydrochloric acid.  
Grade: Reagent (20-mesh and finer).  
Use: Analysis (testing for nitrogen).

**developer.** (1) A term applied in the dyeing industry to certain organic compounds which in combination with some other organic compound already deposited upon the fiber will develop a colored compound, or if united with a dye already upon the fiber will form a new coloring matter possessing a more desirable or a faster color.

(2) A substance used in photography to convert a latent image to a visible one by chemical reduction of a silver compound to metallic silver more rapidly in the portions exposed to light than in those not exposed. Such reducing agents as hydroquinone, pyrogallol, and p-phenylenediamine are used.

See also photographic chemistry.

**devitrification.** Formation of unwanted crystals of silica on heating or cooling. The term is used largely in the glass industry. The tendency to devitrify results from the unstable nature of glasses. It usually occurs if the melt is cooled too slowly.

**De Vry's reagent.** Contains molybdate ion.  
Use: Test reagent for alkaloids.

**devulcanization.** Technically a misnomer, since vulcanization is irreversible. The term is used to describe the softening of a vulcanizate caused by heat and chemical additives during reclaiming.

**dewatering.** Removal of gross water from a suspension or sludge by filtration, expression, centrifugation, or clarification. Paper pulp is dewatered by the Fourdrinier wire; rubber latex may be concentrated in a centrifuge, in which half or more of the water is removed. Sludges and organic wastes are also dewatered centrifugally. See drying, dehydration, centrifugation, clarification.

**dew of death.** See  $\beta$ -chlorovinylchloroarsine.

**dew point.** The temperature at which air is saturated with moisture, or in general the temperature at which a gas is saturated with respect to a condensable component.

**"Dexedrine" [SmithKline].** TM for dextroamphetamine sulfate.

**"Dexon" [Mobay].** TM for p-dimethylamino-benzenediazo sodium sulfonate.

**dextran.** (macrose). Certain polymers of glucose which have chain-like structures and molecular weights up to 200,000. Produced from sucrose by *Leuconostoc* bacteria. Occur as slimes in sugar refineries, on fermenting vegetables, or in dairy products. Clinical dextran is standardized to a low molecular weight (75,000); is made by partial hydrolysis and fractional precipitation of the high-molecular-weight particles.

Properties: Stable to heat and storage. Soluble in water, making very viscous solutions. Solutions can be sterilized. Combustible.

Use: Blood plasma substitute or expander, confections, lacquers, oil-well drilling muds, filtration gel, food additive.

**dextranase.** A enzyme reported to be effective in reducing dental caries.

**dextran sulfate.** See sodium dextran sulfate.

**dextrin.** (starch gum). A group of colloidal products formed by the hydrolysis of starches. Industrially, it is made by treatment of various starches with dilute acids or by heating dry starch. The yellow or white powder or granules are soluble in boiling water and insoluble in alcohol and ether.

Use: Adhesives, thickening agent, sizing paper and textiles, substitute for natural gums, food industry, glass-silvering compositions, printing inks, felt manufacture, substitute for lactose in penicillin manufacture, fuel in pyrotechnic devices.

**"Dextrinase" [Miles].** TM for a fungal amylase which converts starches and dextrans to maltose and dextrose.

Use: Syrups and other products high in reducing sugars.

**dextrorotatory.** Having the property when in solution of rotating the plane of polarized light to the right or clockwise. Dextrorotatory compounds are given the prefix *d* or (+) to distinguish them from their levorotatory, *l* or (−) isomers. The plus (+) and minus (−) signs are preferred.

See optical rotation.

**dextrose.** See glucose, which is the preferred term.

**dextrose equivalent.** (DE). The total amount of reducing sugars expressed as dextrose that is present in a corn syrup, calculated as a percentage of the total dry substance. The usual technique for determining DE in the corn-products industry is the volumetric alkaline copper method.

See also glucose syrup.

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For more information, contact:

Van Nostrand Reinhold  
115 Fifth Avenue  
New York, NY 10003

Chapman & Hall GmbH  
Pappelallee 3  
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Germany

Chapman & Hall  
2-6 Boundary Row  
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